CURRICULUM TEMPLATE

Cluster of Study: Science, Technology, Engineering, and Mathematics
Major: Pre-Engineering (Project Lead the Way -PLTW)

Required Core for Graduation	CORE CHOICES** *+College Credit by Competency Articulation* √ *College Credit by Exam Available* ● *College Credit through National Certification available* ≠ *Dual Enrollment; check local articulation agreements* ◊ *Statewide University Transfer Agreement*			
	9	**10**	**11**	**12**
English* Four Units	English 1 English 2 English 2 Honors	English 2 English 2 Honors English 3 English 3 Honors	English 3 English 3 Honors English 4 English 4 Honors	English 4 English 4 Honors AP English√ OCtech: English 101/ High School Elective ◊ ≠ OCtech: English 102/ High School Elective ◊ ≠
Math* Four Units	Algebra 1 Algebra 2 Geometry Algebra 1, Part I Algebra 1, Part II	Algebra 2 Algebra 2 Honors Geometry Geometry Honors	Probability & Statistics AP Statistics√ Algebra 2 Algebra 2 Honors Geometry Geometry Honors Pre-Calculus	Pre-Calculus AP Calculus√ Probability & Statistics AP Statistics√ College Algebra (OCtech: MAT 110) ◊≠ Analytical Geometry & Calculus I (OCtech: MAT 140) ◊≠ Analytical Geometry & Calculus II (OCtech: MAT 141) ◊≠
Science* Three Units	Physical Science	Biology	Chemistry Chemistry Honors AP Chemistry√ AP Biology√ Physics Human Anatomy and Physiology Earth Science	Physics Chemistry Chemistry Honors AP Chemistry√ AP Biology√ Human Anatomy and Physiology Earth Science College Biological Science I (OCtech: BIO 101) ◊≠ College Biological Science II (OCtech: BIO 102) ◊≠ College Chemistry I (OCtech: CHM 110) ◊≠ College Chemistry II (OCtech: CHM 111) ◊≠

Social Studies Three Units	Global Studies 1	Global Studies 2	U.S. History AP U.S. History√	Economics (.5 unit) American Government (.5 unit) OCtech: College History 101◊≠ OCtech: College History 102◊≠ OCtech: Macroeconomics ECO 210 ◊≠
Additional State Requirements	Physical Education *or* JROTC (one unit) Computer Science (one unit) Foreign Language *or* CATE (one unit) Electives (seven units)		Pass High School Assessment Program (HSAP)	
Local Graduation Requirements	**Certifications:**			

+Required Courses for Major (Minimum of four credits required)	**Complementary Coursework**	**Extended Learning Opportunity Options Related to Major**
Introduction to Engineering Design + Principles of Engineering + Digital Electronics + Computer Integrated Manufacturing + Engineering Design and Development + ***Higher Education Continuation:*** Introduction to Engineering Technology (OCtech: EGR101)≠ DC Circuits (OCtech: EET 111) ≠ Science and Technology I (OCtech: EGR 106) ≠ +As suggested by the High Schools that Work model	Calculus AP Calculus√ Physics Electricity 1 ● (2 units) Electricity 2 ● (2 units) Welding 1 Welding 2 ***Higher Education Continuation:*** College Algebra (OCtech: MAT 110) ◊≠ College Trigonometry (OCtech: MAT 111) ◊≠ Analytical Geometry & Calculus I (OCtech: MAT 140) ◊≠ Analytical Geometry & Calculus II (OCtech: MAT 141) ◊≠ Microcomputer Applications (OCtech: CPT 170) ≠ General Psychology (OCtech: PSY 201) ◊≠ Introduction to Sociology (OCtech: SOC 101) ◊≠ College Public Speaking (OCtech: SPC 205) ◊≠	

Professional Opportunities Upon Graduation		
High School Diploma	**2-Year Associate Degree**	**4-Year Degree & Higher**
Drafting Assistant Estimator	Engineering Technician Instrumentation Technician	Engineer

*Course selection will depend on satisfying prerequisites.
**Not all courses are offered at all high schools.